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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,438	08/15/2003	Roger Moulton	SAX-008.01	2478
25181	7590	05/11/2009		
FOLEY HOAG, LLP PATENT GROUP, WORLD TRADE CENTER WEST 155 SEAPORT BLVD BOSTON, MA 02110			EXAMINER	
			OH, TAYLOR V	
			ART UNIT	PAPER NUMBER
			1625	
			MAIL DATE	DELIVERY MODE
			05/11/2009 PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/642,438

**Applicant(s)**

MOULTON ET AL.

**Examiner**

Taylor Victor Oh

**Art Unit**

1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1.7.22-27.29-34.37.39.41-49.51.52 and 57-65 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1.7.22-27.29-34.37.39.41-49.51-52.57-65 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-849)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Applicant's arguments with respect to claims 1, 7, 22-27,29-34,37,39, 41-49,51-52,57-65 have been considered but are moot in view of the new ground(s) of rejection.

**The Status of Claims :**

Claims 1, 7, 22-27,29-34,37,39, 41-49,51-52,57-65 are pending.

Claims 1, 7, 22-27,29-34,37,39, 41-49,51-52,57-65 are rejected.

**DETAILED ACTION**

1. Claims 1, 7, 22-27,29-34,37,39, 41-49,51-52,57-65 are under consideration in this Office Action.

**Priority**

2. It is noted that this application claims benefit of 60/404,178 filed on 8/16/2002; claims benefit of 60/404,202 filed on 8/16/2002.

**Drawings**

3. None.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 7, 22-27, 29-34, 37, 39, 41-49, 51-52, 57-65, and their corresponding dependent claims are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, 27, 43, and 58, the phrase "a quaternary ammonium, phosphonium or sulfonium cation" is recited. This expression is vague and indefinite because each term of the functional languages "a quaternary ammonium, phosphonium or sulfonium cation" is used without any definitive chemical structure associated with it; thus, there is no metes and bounds of the claimed invention. Therefore, an appropriate correction is required.

In claims 1 and 27, the phrase "R<sub>1</sub> and R<sub>2</sub> may be taken together to form a ring" is recited. This is vague and indefinite because the specification does not elaborate what kind of the ring is formed from R<sub>1</sub> and R<sub>2</sub>; there is uncertainty as to what kind of the ring is formed. Therefore, an appropriate correction is required.

In claim 43, the phrase "a carbon-containing group" is recited.

This is vague and indefinite because the specification does not elaborate what is meant by the term "a carbon-containing group". It may mean that a compound

contains any number of carbon atoms, but there are numerous compounds containing carbons ; furthermore, the anionic structure needs a definitive range of the carbon atoms in the formula compound; there is uncertainty as to what kind of "a carbon-containing group" can be suitable for the claimed invention. Therefore, an appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

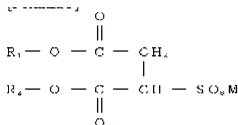
The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claims 1, 7, 22,24,27,29, 31,34,37,39, 41-42,51,57, 60-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko et al (JP08-030013).

Kaneko et al discloses an image removal promoting solution containing the followings (see page 7, formula 3 and 4) :

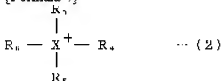
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(The inside of a formula, R1, R2: The same or the alkyl group of the carbon numbers 4-14 which may be different from each other and may branch, M: alkali-metal ion, the 4th class ammonium, the 4th class phosphonium, alkanolamine cation)

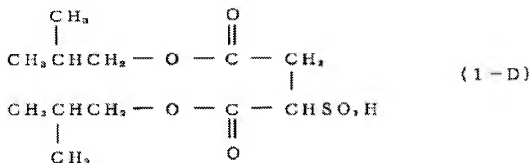
When M of a before type (1) furthermore uses the dialkyl sulfo succinate chosen from the group which consists of sodium ion, a lithium ion, the 4th class ammonium shown by the bottom formula (2), the 4th class phosphonium, and an alkanolamine cation, aging of image removal promotion liquid is small, and since the stable removal property is acquired, it is still more desirable.

[Formula 4]

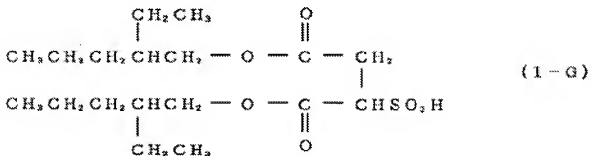


(For the inside of a formula, and X, nitrogen or Lynn, and R3-R6 are hydrogen, the alkyl group of carbon numbers 1-4, a hydroxyalkyl radical, and an alkyl halide radical)

Furthermore, the formula (1-A) (docusate) is represented as a surfactant (see page 8 at the top).



(see page 8, lower middle)



(see page 8, upper middle).

In order to acquire the removal property of the good image formation matter also in the passage of time, as for the amount of a hydroxide as shown by said formula (2-A) - (2-D), and alkanolamine, it is desirable to be added to the number of mols of a front-type (1) compound, so that it may become 50 % of the weight or more (see page 11, paragraph# 0010).

However, the instant invention differs from the prior art in that a greater than 70 wt % of the ionic liquid is present in the composition.

With respect to the % difference in the composition, the passages in the prior art (see page 11, paragraph# 0010) indicate that it seems reasonable to have a greater than 50 wt % of the ionic liquid depending on its usage. Therefore, it would have been



obvious to the skilled artisan in the art to be motivated to adjust the concentration of the ionic liquid depending on its usage by routine experimentation. This is within the purview of the skilled artisan in the art .

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taylor Victor Oh whose telephone number is 571-272-0689. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Andres can be reached on 571-272-0867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Taylor Victor Oh, MSD,LAC  
Primary Examiner  
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/Taylor Victor Oh/

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5/10/09